Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

ZOOLOGY.

A New Etheostoma from Arkansas.—*Etheostoma pagei* sp. nov. Head 3½ in length of body; depth 4 to 4¼; eye 3½ in head; snout 3½; dorsal fin with nine or ten spines and 12 or 13 soft rays; anal spines 2; soft rays 7; scales 8–56 to 61–13.

Body robust, snout abruptly decurved but not blunt; mouth rather large terminal, maxillary reaching vertical from pupil; premaxillaries not protractile; lips thick; gill-membranes not connected; cheeks, opercles and breast naked; nape scaled: lateral line imperfect, developed on only about 12 scales.

Color of male: belly bright red, extending on sides to upper rays of pectoral fins; above the red is a yellowish band on the sides about as wide as diameter of eye; upper part of body olivaceous with darker markings, each scale being provided with a black spot, these making faint lateral streaks along the rows of scales, about 9 dark blotches on the side, resembling faint bars. Caudal and soft dorsal fins barred; pectorals faintly barred; anal ventrals plain; a dark numeral scale. The female has the underparts whitish, the sides olivaceous, much mottled with darker; otherwise as in the male.

Length, 2 inches.

Only the types known. Two specimens taken in the spring branch on the U. S. Fish Hatchery grounds, at Neosho, Missouri.

(Named for William F. Page, Superintendent of U. S. Fish Hatchery, Neosho, Missouri.)—S. E. MEEK.

Immunity of Salamanders in Respect to Curare.—In a paper read before the French Academy of Sciences, March 14th of this year, MM. C. Phisalix and Ch. Contejean demonstrated that salamanders have the power of resisting, to a remarkable degree, the action of certain poisons, particularly that of curare. A salamander weighing 28 grammes, was completely curarised only after receiving 43 millegrammes of curare, a quantity sufficient to poison 80 frogs. This immunity exists, but to a less degree, in the larva of the salamander, and to a still less degree in the tadpole of the frog. In order to study the cause of this immunity, the authors undertook a series of experiments. Their researches were conducted on the theory that there might exist a relation between the presence of venomous glands and this immunity, since the resistance of the toad is greater than that of the frog. In such a case, the immunity of the salamander would be due to the presence in its blood of a substance which would be an antidote or would neutralize the effects of curare. To verify this hypothesis, they innoculated a frog with the blood of a salamander, and obtained the following results:

1. The mixture of the blood of a salamander and curare in the proper proportions does not affect the frog.
2. The blood of the salamander provokes a physiological reaction antagonistic to curare.

These results show that the blood of the salamander contains a substance anti-toxic to curare; this substance exercises a protective action not only over the animal which secretes it, but also over the frog, in which it produces a true physiological reaction against curare.

The experiments of MM. C. Phisalix and Contejean were made in the laboratory of comparative physiology which is in charge of M. Chauveau, of the Museum of Natural History of Paris. (Revue Scientifique, 1st Sept., 1894.)

List of Ophidia found near Vincennes, Indiana.—I do not offer the following as a complete list of the snakes to be found in the neighborhood of Vincennes, but have included only such as I have taken myself. The region was once a very paradise for the herpetologist, but in the past few years many large swamps have been drained and cleared and animals once common are now rare, if not wholly exterminated. Still a more careful search would doubtless lengthen my list considerably.

The *Ancistrodon contortrix, Sistrurus catenatus* and *Crotalus horridus* were certainly once abundant, and are still *reported* as numerous, though I have never succeeded in finding a specimen of any one of them, and therefore do not include them in my list.

1. *Carphophis amoena* (Say), found under overhanging rocks.
2. *Farancia abacura* (Holb.), swamps.
3. *Bascanium constrictor*, numerous.
4. *Diadophis punctatus* (Linn.) found in rotten logs; rare.
5. *Liopeltis vernalis* (DeK.), abundant.
6. *Cyclophis aestivus* (Linn.), abundant.
7. *Storeria dekayi* Holb., among high grass in swamps.
8. *Storeria occipitomaculata* (Storer), stony ground.

9. *Coluber vulpinus* (B. & G.), pugnacious and regarded with superstitious dread.

10. *Coluber guttatus* (Linn.), found in dusty roads; enters yards and gardens at night.

11. *Coluber obsoletus* (Say), decidedly reddish from the blotches on base of scales. Have found it only on trees. Hisses with considerable force. A captive ate sparrows, but declined mice and eggs.

12. *Natrix leberis* (Linn.), "striped water snake."

13. *Natrix kirtlandii* (Kenn.), "spread head;" rare.

14. *Natrix sipedon* (Linn.), large; typical variety of our most common snake; variously colored. I found one that would flatten its head and anterior portion of its body like the *N. kirtlandii* or the *Heterodon platirhinus.* I have seen the two extremes of color, the reddish brown and the black spotted in the brood of one female captive.

15. *Heterodon platyrhinus,* common. A friend found a spotted and a uniformly colored specimen copulating and kept them, hoping to raise a family of cross breeds, but his neighbors threatened to prosecute him for keeping such venemous serpents in town, and at length some one broke open his box and killed the "deadly spreading adders." The snakes were strictly diurnal in their habits. They were voracious and preferred toads, but when pressed by hunger would eat frogs and small snakes.

16. *Ophibolus doliatus* (Linn.) common. A boy killed one in the woods, and I went out to examine it, and found beside the dead snake a live one of the same species. It was examining the body and showed fight when disturbed. Was it a mourner guarding the corpse, or a ghoul disturbed at its feast? I do not know.

17. *Ophibolus getulus,* less common.

18, 19, 20. *Eutainia saurita, radix* and *sirtalis,* the latter in great variety.

Mr. Robert Ridgway says that he was informed that the *Ancistrodon piscivorus* (LaC.) was abundant about Vincennes. He was probably misinformed.

The *Natrix sipedon* is called the "water moccassin" in this locality, and is much dreaded. A man near here is reported to have died recently from the effects of its bite, aud, strange to say, this story is believed.

The coral snake, *Elaps fulvius,* has been twice reported from this State, but no one in this locality, so far as I can learn, has ever heard of such an animal.—ANGUS GAINES.

38 Locust St., Vincennes, Ind.

Zoological News.—**Mollusca.**—According to MM. Bornet and Flahault, the chief cause of the disappearance of shells in quiet bays where they are not subject to wave action is the constant gnawing away of the calcareous matter by shell-boring algae and fungi. Ten genera of boring plants are described, and, in some cases, the life-histories are narrated. (Bull. Soc. Bot. France, t. 36.)

Pisces.—The Bull. U. S. Fish. Com. for 1892 includes a paper by Dr. Eigenmann on the viviparous fishes of the Pacific Coast of North America. The author reviews the Embiotocidae, gives a bibliography of the viviparous fishes, and a detailed accout of the development of Cymatogaster from fertilization to hatching, and the details of the development of the intestine and Kupffer's vesicle. Outlines of the post-embryonic development are also presented.

According to Dr. Gill, the proper generic name of the Tunnies is Thynnus. A discussion of the question is followed by a list of the synonyms. (Proceeds. Natl. Mus., Vol. XVI, No. 965.)

The same author has published a provisional arrangement of the families and subfamilies of fishes which includes the names of the proposers and modifiers of family names with the dates of naming. (Sixth Mem., Vol. VI, Natl. Acad. Sciences.)

Mammalia.—Dr. J. A. Allen calls attention to the cranial variations due to growth and individual differentiation, and instances the species *Neotoma micropus* as a case in point. In a series of fifty skulls of this species it would be easy to select extremes that depart so widely from the average in one or more characters that they might readily be supposed to represent distinct species. Hence the determination of the status of a species described from one or two specimens must depend upon the subsequent examination of a large amount of material bearing upon this and its closely-related forms. (Bull. Am. Mus. Nat. Hist., Aug., 1894.)